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WOLF BLOCK SCHORR AND SOLIS-COHEN LLP			EXAMINER	
250 PARK AVENUE			RICE, ELISA M	
NEW YORK, NY 10177			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/526,600	Applicant(s) HEIKKILA	
	Examiner Elisa M. Rice	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>03/03/2005</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1-7, 9-20 are rejected under 35 U.S.C. 102(b) as being anticipated by Kipphan (US 6,050,192).

Regarding claim 1, Kipphan discloses an apparatus for measuring, in connection with a printing press, print quality of the printing press used in the production of newspapers, which apparatus is provided with light sources illuminating a moving paper web and with photo detectors ("photodiodes", column 4, line 63) measuring the light reflected from the surface of the paper web and sent by the light sources ("reflection for the measuring light", column 5, line 4), wherein the apparatus is arranged to measure, continuously during the running of the printing press, and simultaneously substantially across the entire width of the paper web ("A favourable variant consists in a measuring bar that is

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disposed across the entire width of the printed product, there being simultaneously present," column 5, line 7-10), several parallel reflection profiles that extend in the longitudinal direction substantially over the entire page ("in transversely transversing manner", column 5, line 15-16), and use the measurement results of the measuring apparatus in real time for the detection of waste ("quantity of waste", column 2, line 35) and for the adjustment of inking in the printing press ("influence the shaping and or/inking of a sheet", column 1, line 23).

Regarding claim 2, Kipphan discloses an apparatus as claimed in claim 1 for measuring print quality, wherein the apparatus is arranged to identify the normal operation of the printing press from reflection profiles measured substantially over the entire area of a page, and measure parameters needed in closed-loop control of the printing press only during said normal operation of the printing press, and at other times analyze from the measured reflection profiles only waste parameters, which are used to bring the printing press to normal operation 9 (Kipphan, column 4, line 6-15).

Regarding claim 3, Kipphan discloses an apparatus as claimed in claim 1 for measuring print quality, Kipphan does not explicitly disclose wherein the apparatus infers the locations of test marks used for closed-loop control from the measurement results of the reflection profiles substantially covering the entire page (Kipphan, column 7, line 8-12).

Regarding claim 4, Kipphan discloses an apparatus as claimed in claim 1 for measuring print quality, wherein the light source used for measuring the reflection profile illuminates substantially only the area seen by each detector that measures reflection (Kipphan, column 5, line 3-5).

Regarding claim 5, Kipphan discloses an apparatus as claimed in claim 4, wherein the light source and the photo detector operate as phase-locked (Kipphan, column 10, line 28-38).

Regarding claim 6, Kipphan discloses an apparatus as claimed in claim 1 for measuring print quality, wherein the apparatus infers the validity of the measurement results for closed-loop control from the measurement results of the reflection profiles substantially covering the entire page (Kipphan, column 4, line 6-15).

Regarding claim 7, Kipphan discloses an apparatus as claimed in claim 1 for measuring print quality, wherein sampling is more frequent at the test marks than elsewhere (Kipphan, column 3, line 34-53).

Regarding claim 9, Kipphan discloses a method for measuring and monitoring print quality of a printing press used in the production of newspapers based on reflection profile measurements, wherein a moving paper web is illuminated by means of light

sources and the light reflected from the surface of the paper web ("reflection for the measuring light", column 5, line 4) and sent by the light sources is measured by means of photo detectors ("photodiodes", column 4, line 63), wherein the method determines reference profiles at the beginning of the printing process (column 7, line 59- column 8, line 64) and measures reflection profiles during production substantially from the entire area of a page ("A favourable variant consists in a measuring bar that is disposed across the entire width of the printed product, there being simultaneously present," column 5, line 7-10), in the longitudinal direction substantially over the entire page and substantially across the entire width of the paper web ("in transversely transversing manner", column 5, line 15-16), the measuring and monitoring of the print quality during production being based on comparing the reflection profiles measured and the reference profiles and on calculating parameters (Kipphan, column 4, line 6-20), on the basis of which it is inferred as to when the operation of the printing press is normal, and during said normal operation the darkness of the print is measured from test marks or from another part representing a given darkness of the print, and inking in the printing press is adjusted based on the result of measurement (column 5, line 33-42; column 3, line 43-55).

Regarding claim 10, Kipphan discloses a method as claimed in claim 9 for measuring and monitoring print quality based on reflection profiles, wherein the measurement of the reflection profiles is made as a sampling measurement such that sampling is more

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frequent at test marks than in the area of the rest of the page (Kipphan, column 3, line 34-53).

Regarding claim 11, Kipphan discloses a method as claimed in claim 9 for measuring and monitoring print quality based on reflection profiles, wherein the reflection profiles are processed in parallel in several modules (Kipphan, column 5, line 49-54).

Regarding claim 12, Kipphan discloses a method as claimed in claim 9 for measuring and monitoring print quality, wherein an accepted page indicated by the printer or inferred by the system or calculated from a pre-press data file is used as reference (Kipphan, column 7, line 61- column 8, line 1).

Regarding claim 13, Kipphan discloses a method as claimed in claim 9 for measuring and monitoring print quality, wherein the cause of a flaw in print quality is inferred based on the measurement data of the reflection profile of a page, i.e. whether a flaw in print quality is caused by water marking, toning, ink blotches or by areas having too little printing ink (Kipphan, column 3, line 17-19; column 9, line 19-28)).

Regarding claim 14, Kipphan discloses a method as claimed in claim 9 for measuring and monitoring print quality, wherein the results of continuous profile measurement are used for assessing the condition of the printing press (Kipphan, column 3, line 56-67; column 6, line 51-60).

Regarding claim 15, Kipphan discloses a method as claimed in claim 9 for measuring and monitoring print quality, wherein from the results of continuous profile measurement it is inferred at the beginning of printing as to when printing plates open and the measuring apparatus starts only after that an automatic search for test marks and possibly also informs the control and automation system of the printing press about the opening of the printing plates, for example, a device measuring a register difference, so that these can also start measurements and adjustment (Kipphan, column 3, line 50-58).

Regarding claim 16, Kipphan discloses a method as claimed in claim 9 for measuring and monitoring print quality, wherein the results of continuous profile measurement are also used for analyzing failure of the printing press, for example, by means of recurrent darkness variations, among other things, bearing defects of the printing press, wear of a cylinder blanket or depressions in cylinder blankets, uneven wear of printing plates, worn rollers or worn bearer rings are advantageously identified (Kipphan, column 6, 40-45).

Regarding claim 17, Kipphan discloses a method as claimed in claim 9 for measuring and monitoring print quality, wherein the results of continuous profile measurement are used for analyzing the printing of the test mark and if there are flaws in the printing of the test mark, such as a significant register difference, toning or ink blotches, the colour

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measurement system warns the printer and/or the automation system of a measurement error and stops closed-loop control of ink feed (Kipphan, column 9, line 24-31).

Regarding claim 18, Kipphan discloses a method as claimed in claim 9 for measuring and monitoring print quality, wherein the results of continuous profile measurement are used for assessing failure of the measuring apparatus (self-testing) by also measuring non-printing areas, so that a permanently reduced contrast between white and black indicates contamination of the measuring apparatus (Kipphan, column 13, line 56-64).

Regarding claim 19, Kipphan discloses a method as claimed in claim 9 for measuring and monitoring print quality, wherein the results of continuous profile measurement can be used in the calibration of the measuring apparatus such that the apparatus measures the reflection profile of the entire page, searches for and analyzes test areas and calibrates itself automatically (Kipphan, column 11, line 27-46).

Regarding claim 20, Kipphan discloses a method as claimed in claim 9 for measuring and monitoring print quality, wherein the results of continuous profile measurement are used for collecting production data, such as for measuring ink consumption and for analyzing production mode (Kipphan, column 13, line 35-44).

Claim Rejections - 35 USC § 103

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kipphan (US 6,050,192) and Rakitsch (US 5854680).

Regarding claim 8, while Kipphan discloses an apparatus as claimed in claim 1 for measuring print quality, Kipphan does not disclose wherein the light sources used for measuring the reflection profile are LEDs operating at different wavelengths.

Rakitsch teaches wherein the light sources used for measuring the reflection profile are LEDs operating at different wavelengths (Rakitsch, column 3, line 44; column 3, line 26-27).

It would have been obvious to one of ordinary skill in the art to modify the print quality monitoring apparatus of Kipphan to include LEDs operating at different wavelengths as the light sources used for measuring the reflection profile as taught by Rakitsch because as stated in the Rakitsch reference in column 3, lines 34-43 "by comparison with the structure of conventional densitometers that generate radiation in a very broad

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range in order to illuminate the measuring point which results in the generation of high heat in the case of thermal light sources (i.e., incandescent lamps), this invention has the advantage of avoiding thermal dissipation issues and the additional construction efforts necessary for prior designs. In the case of illumination with LEDs, it is possible to dispense, in particular, with IR blocking filters.”

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elisa M. Rice whose telephone number is (571)270-1582. The examiner can normally be reached on 8:00a.m.-5:30p.m. EST Monday thru Friday.

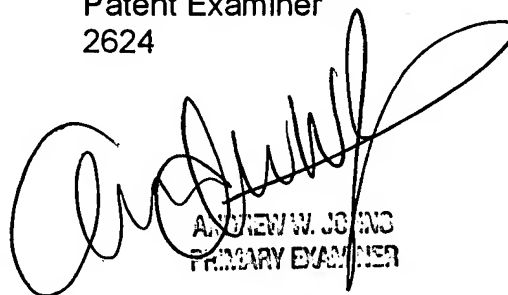
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian P. Werner can be reached on (571)272-7401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Elisa Rice Ek 10/29/2007
Patent Examiner
2624

EMR



ANDREW W. JONES
PRIMARY EXAMINER